

# Stargazing Targets, May, 2022

## Des Moines Astronomical Society / Ashton Observatory



Targets – west to east	Angular size	Distance	Dia (Sep)	Mag
Castor A/B double stars	-	51 ly	(81 AU)	1.6 & 3.0
M67 open cluster	25 min	2600 ly	19 ly	6.9
M44 open cluster (Beehive)	70 min	610 ly	12 ly	3.1
$\gamma$ (gamma) Leonis (Algieba) double s.	-	130 ly	(235 AU)	2.2 & 3.6
M65/66 – Leo Triple	8/10 min	42/37 Mly	93/112 kly	9
M104 spiral galaxy (Sombrero)	8.4 min	28 Mly	69 kly	8.1
M100 face-on spiral + Virgo Gp	6.1 min	52 Mly	92 kly	9.3
M86 spiral galaxy (Markarian's Chain)	12 min	57 Mly	190 kly	8.8
M87 elliptical galaxy (Virgo A) (bh pic)	7 min	55 Mly	113 kly	8.7
M64 spiral galaxy (Black Eye)	11 min	14 Mly	44 kly	8.4
M53 globular cluster	13 min	58 kly	221 ly	7.6
M3 globular cluster	18 min	33 kly	174 ly	6.2
$\epsilon$ (epsilon) Bootis (Izar) double star	-	203 ly	(180 AU)	2.5 & 2.6
M5 globular cluster	23 min	24 kly	164 ly	5.7
M51 spiral galaxy (Whirlpool)	14 min	28 Mly	112 kly	7.9
M101 spiral galaxy (Pinwheel)	24 min	23 Mly	162 kly	7.8
Alcor & Mizar double-double stars	-	82/86 ly	(26 AU)	4.0 & 2.2;3.9
M81 spiral galaxy (Bodes)	22 min	12 Mly	74 kly	6.8
M82 spiral galaxy (Cigar)	11 min	12 Mly	38 kly	8.0
M97 planetary nebula (Owl)	3.4 min	1700 ly	1.7 ly	9.8
M13 globular cluster	20 min	23 kly	135 ly	5.8
M92 globular cluster	14 min	27 kly	110 ly	6.4
$\alpha$ (alpha) Herculis (Rasalgethi) dbl s	-	360 ly	(516 AU)	3.4 & 3.5
M57 planetary nebular (Ring)	1.4 min	1400 ly	0.6 ly	8.8
M56 globular cluster	9 min	31 kly	79 ly	8.3
Albireo double star	-	430 ly	(4240 AU)	3.1 & 3.2
M27 planetary nebula (Dumbbell)	8 min	1400 ly	3.2 ly	7.1
Moon: full = May 07; new = May 22	32 min full	240,000 mi	2,160 mi	-12 max
Morning planets (east to west): Pluto-Venus-Jupiter-Neptune-Mars-Saturn				
Lunar eclipse: May 15, partial starting 9:27 p.m., totality starting 10: 29 p.m.				

**Notes:**

Angular size=as viewed from Earth; Distance=distance from Earth; Dia=overall true size; (Sep)=distance between double stars; Mag=apparent visual magnitude from Earth.

min=arcminute; sec=arcsecond; ly=light year (~5.9 trillion miles); kly=ly x1000; Mly=ly x1,000,000.

AU=astronomical unit, 1AU=the average distance from Earth to Sun (~93,000,000 mi).

Constellations/stars rise approx. 4 minutes earlier/day. The planets move differently per orbit. Moon at least 30 minutes later/night.

Milky Way: size = 120x1 kly; total stars = 400 billion. MW rotates > Solar System = 483,000 mph. The MW thru space = 1,300,000 mph.